REMARKS

Request for Reconsideration

Applicant has carefully considered the matters raised by the Examiner in the outstanding Office Action but remains of the position that patentable subject matter is present. Applicant respectfully requests reconsideration of the Examiner's position based on the following remarks.

Claims Status

Claims 1, 3-9 are pending in this Application. No Amendments have been made at this time.

Present Invention

One of the unique aspects of the present invention is that good curing of ultraviolet curable ink is obtained at different recording speeds. In order to obtain this good curing, the maximum amount of ink that is jetted on to the recording material is varied depending on the speed of the recording. In order to obtain good curing the speed and the maximum amount of ink that is jetted is inversely proportional. In other words, for a high speed the maximum amount of ink is decreased and for a slow speed the maximum amount of ink can be increased. By varying the maximum

amount of ink that is jetted sufficient curing from the ultraviolet device can be obtained. Respectfully, the prior art does not teach these aspects of the present invention.

Prior Art Rejection

Claims 1, 3, 4, 6-9 had been rejected as being unpatentable over a combination of Mills and Hoisington. Claim 5 had been rejected as being unpatentable over a combination of Mills, Hoisington and Hintermann.

The Examiner recognized that Mills does not teach an apparatus with a plurality of recording modes with different image recording speeds and changing a maximum amount of ink to be jetted corresponding to the plurality of printing modes, where the maximum amount of ink to be jetted is decreased for a recording mode with a high image recording speed and the maximum amount of ink to be jetted is increased for a recording mode with a low image recording speed. The Examiner had turned to Hoisington for those limitations.

First, it will be noted that Hoisington is not directed to an irradiation curable ink. Thus, it is clear that Hoisington cannot focus on a problem solved by the present invention, namely providing enough UV-radiation in

order to cure an ink. Thus, even if Mills were combined with Hoisington, the combination would not yield the present invention because the combination would lack any teaching on how to balance the total amount of ink jetted, the curing time necessary to obtain good curing and the speed of the printing.

Second, Hoisington does not even teach increasing/ decreasing the maximum amount of ink to be jetted based on recording speed as recited in claims 1 and 7. In par. 35 of Hoisington he explains two things.

First, during a high resolution mode, the apparatus of Hoisington controls drop variability and grayscale. Hoisington goes on to explain in par. 35 that in low resolution mode the number of fire pulses is reduced to provide faster printing. Thus, it can be seen by par. 35 that there is no specific mention of the speed of the printing. Par. 35 refers to high resolution and low resolution. High resolution and low resolution are generally understood to be the number of dots per inch or dpi. Dpi does not necessarily correlate to the speed at which the printing occurs.

Second, it can be seen that par. 35 makes no mention of the maximum amount of ink to be jetted. Hoisington teaches that the plurality of jets 10 are each individually

controlled by fire pulses 14, see par. 4. Hoisington explains that the volume of ink produced by each fire pulse depends on the properties of each individual ink, see par. 5. In fact, in par. 8 of Hoisington, he teaches that the volume of the drops jetted is controlled to be essentially uniform. This is directly contrary to the present invention. In the present invention the maximum volume that is jetted onto the recording is varied depending on the speed. In other words, Applicants do not wish to obtain uniform volume of drops but rather to obtain uniform curing of the ink. Uniform curing is depended upon the amount of UV-irradiation that the ink is subjected to. Thus, in order to obtain good curing in a short period of time, the maximum amount of ink is decreased.

Hoisington explains in low resolution mode, the number of firing pulses can be eliminated or reduced. Arguably by decreasing the number of firing pulses, the amount of ink is lowered. Thus, in low resolution mode, it can be said that Hoisington is teaching lowering the amount of ink or lowering the maximum amount of ink. This would be directly contrary to the present invention, because in the present invention it specifically says that at decreased speeds you can have an increase of the maximum amount of ink compared to high speeds.

Respectfully, Hoisington's concern is uniform drop volume so as to provide a uniform image. This is directly contrary to the present invention where applicants are not concerned with a uniform drop volume but rather ensuring that not too much ink is provided so that uniform curing can occur. The Examiner can appreciate uniform curing does not translate into uniform drops. One of the reasons for this diversity is because Hoisington is not concerned with UV curable inks. Since Hoisington is not related to UV curable inks, he does not appreciate the solution which is provided for by the present invention, and does not appreciate the fact that for higher recording speeds less ink must be employed in order to obtain good curing while for lower speeds more ink can be employed and so obtain good curing.

Respectfully, neither Mills, Hoisington, nor Hintermann teach or suggest the method and apparatus as presented in the claims.

Conclusion

In view of the foregoing, it is respectfully submitted that the Application is in condition for allowance and such action is respectfully requested.

Should any fees or extensions of time be necessary in order to maintain this Application in pending condition, appropriate requests are hereby made and authorization is given to debit Account # 02-2275.

Respectfully submitted,

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